

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027680**Date Inspected:** 21-May-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG/Tower**Summary of Items Observed:**

At the start of the shift this Quality Assurance Lead Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) Quality Control (QC) personnel. The observations and inspections were performed as noted below:

A). This Quality Assurance Lead Inspector (QALI) assigned the QA Inspectors to the following, but not limited to the work station(s) listed, to observe the welding and the QC inspection of the following:

Joselito Lizardo-Tower 13 Meter El. (Observation of welding and QC inspection of the shear plate to diaphragm plate connection), ESW repair welding and welding of corner stiffener plates.

Will Clifford-Tower Base (Observation of welding and QC inspection of tower base stiffener) and QA/UT verification of ESW shear plates.

David Gray-Modifications of cable band located at various shop locations.

Matt Daggett-OBG W13 Drop-In Plates (Observation of removal of backing bar at the field splices) and OBG W6 (Observation of repair welding, excavation, QC inspection and testing of deck access hole).

Scott Croff-Skyway & Pier 7 (Observation of welding and QC inspection of new stiffener plates @ bike path panels, CCO-233) and observation of work performed on the East and West parapet. (RFI 2830R00).

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Doug Frey-OBG E13 (Observation of welding, QC inspection and testing), OBG E12 (Observation of welding and QC inspection of the deck access hole) and QA/UT verification. See QAI note in regards to planar misalignment of longitudinal stiffener.

NOTE: See QA daily Weld Inspection Reports (WIR) and NDE reports for additional information and details.

### Quality Assurance Lead Inspector (QALI) Summary

This QA Lead Inspector (QALI) observed the QA Inspector's Joselito Lizardo, Doug Frey, David Gray, Scott Croff, William Clifford and Matt Daggett monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures for compliance with the contract specifications. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift, this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications and no issues were noted.

This QALI continued the daily review of field inspection reports and update of the field document control tracking records regarding the Orthotropic Box Girders (OBG, Longitudinal and Transverse "A" Deck Stiffeners, Deck Access Holes and the Tower Shear plates). Also, this QALI performed survey and prepared update documentation of the East and West OBG.

### Modifications of Cable Bands

This QAI verified the arrival of twenty (20) cable band assemblies to the job site from various machine shops during this shift. This QAI also verified the amount of material removed from the female cable band half contact surface which appeared to be approximately 15 mm. At the conclusion of this verification this QAI observed ABF personnel chamfering the inside edge of the cable band to a sloping transition of 5 mm: 20 mm utilizing a 9" grinder with a sanding disc attached to achieve a smooth finish. Also observed by this QAI was the preparation of the finishing the new cut surface edge to a 2 mm radius and a 5 mm radius at the suspender rope saddle. The following cable bands were received with the required work completed during this shift: WPP34, WPP36, WPP44, WPP46, WPP48, WPP50, WPP72, WPP78, WPP80, WPP84, WPP86, WPP88, WPP90, WPP92, WPP94, WPP96, WPP100, WPP102, WPP104 and WPP106. Reference Bay Bridge Mets Mail: Cable Band Machining, dated Friday, May 18, 2012.

QA Note: Photographs are on file.

### Planar Misalignment Issue

This QALI was advised by QA inspector Doug Frey of this issue and was also informed of the amount of misalignment which was noted as 5 mm maximum. This QALI informed Mr. Frey to document the dimensions of the misalignment and to enter this information in the daily Weld Inspection Report (WIR) TL-6031. The QC Lead

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Inspector, Bonifacio Daquinag has been informed of this issue and will report to Welding Quality Control Manager (WQCM) James Bowers for his review and disposition. The location and identity are as follows: E13 drop-in panel/ Weld Number 13E-PP122.2-LS1.

See digital photographs on page 3 of this report for some of the work observed during this shift.



### Summary of Conversations:

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Reyes,Danny	Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell,Bill	QA Reviewer
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